IN THE CLAIMS:

Please amend the claims as follows:

1. (Currently Amended) A planar light wave circuit comprising:

a common region defined by each bordering ~~each~~ end surface of a first to a third waveguides;

the first waveguide for receiving external optical signals to be guided to the common region;

the second waveguide having ~~a first~~ the end surface ~~originated from~~ bordering the common region ~~and a second end surface~~, so that lights outputted from the first waveguide are partially reflected by and partially incidented into the ~~first~~ end surface of the second waveguide and then outputted through the second ~~end surface~~ waveguide; and

the third waveguide for receiving light reflected by the ~~first~~ end surface of the second waveguide and outputting said light ~~through the second end surface,; and~~

wherein the common region is an opening formed on the planar light wave circuit.

2. (Currently Amended) The planar light wave circuit as set forth in claim 1, wherein the ~~common region~~ the opening ~~having~~ has a polygonal column shape in a central portion of the planar light wave circuit, and each of the end surfaces of the first to the third waveguides is located and exposed on a side surface of the opening ~~central portion~~.

3. (cancelled).

4. (Currently Amended) An optical performance monitoring module comprising:

a planar light wave circuit including a first waveguide for receiving an optical signal, a second waveguide, a third waveguide for receiving the light reflected by ~~the~~ an ~~first~~ end surface of the second waveguide, and a common region;

the second waveguide having ~~a first end surface and a second~~ the end surface, so that lights outputted from the first waveguide are partially reflected by the ~~first~~ end surface and are partially incidented into the ~~first~~ end surface and then outputted through the second ~~end surface~~ waveguide;

~~a~~the common region bordering each end surface of the first to the third waveguides and having an index of refraction different from an index of refraction of the second waveguide;

a first detector for detecting transmitted light outputted from the second waveguide; and

a second detector for detecting reflected light outputted from the third waveguide,

wherein powers of a TE and a TM polarization of the optical signal are obtained from index of refractions of the first to the third waveguides, an index of refraction of the common region, and Fresnel coefficients of a TE and a TM polarization obtained from an incidence angle and angle of reflection of the optical signal based on a normal line of ~~an~~the end surface of the second waveguide.

5. (Original) The optical performance monitoring module as claimed in claim 4, wherein the powers of the TE and the TM polarization of the optical signal are obtained by means of the following equation,

$$PD_1 = P_x' + P_y'$$
$$PD_2 = P_x'' + P_y''$$
$$r_x = \frac{n_1 \cos\theta_1 - n_2 \cos\theta_2}{n_1 \cos\theta_1 + n_2 \cos\theta_2}, t_x = 1 + r_x$$
$$r_y = \frac{n_2 \cos\theta_1 - n_1 \cos\theta_2}{n_2 \cos\theta_1 + n_1 \cos\theta_2}, t_y = \frac{n_1}{n_2}(1 + r_y),$$
$$n_1 \sin\theta_1 = n_2 \sin\theta_2, \theta_3 = \theta_1$$
$$P_x' = (1 - |r_x|^2)P_x, \quad P_y' = (1 - |r_y|^2)P_y$$
$$P_x'' = |r_x|^2 P_x, \quad P_y'' = |r_y|^2 P_y$$

wherein, PD_1 represents a power of the transmitted light, P_x' represents a power of TE polarization component from among the transmitted light, P_y' represents a power of TM polarization component from among the transmitted light, PD_2 represents a power of the reflected light, P_x'' represents a power of TE polarization component from among the reflected light, P_y'' represents a power of TM polarization component from among the reflected light, P_x represents a power of TE polarization component from among an optical signal, P_y represents a power of TM polarization component from among an optical signal, r_x represents Fresnel reflection coefficient of the TE polarization component, n_1 represents an index of refraction of the common region, θ_1 represents an incidence angle of an optical signal, n_2 represents an index of refraction of the second waveguide, θ_2 represents a refraction angle of the transmitted light, t_x represents Fresnel transmission coefficient of the TE polarization component, r_y represents Fresnel reflection coefficient of the TM polarization component and t_y represents Fresnel transmission coefficient of the TM polarization component.

6. (Original) The optical performance monitoring module as set forth in claim 4, wherein the second and third waveguides are constructed to satisfy predetermined transit times.

7. (Currently Amended) The optical performance monitoring module as set forth in claim 4, wherein the optical signal is incidented into ~~a first~~ the end surface of the second waveguide at a Brewster angle and the reflected light includes only the TE polarization component.

8. (Currently Amended) The optical performance monitoring module as claimed in claim 4, wherein the common region has a hole, which is shaped like a polygonal column and formed on the planar light wave circuit, and each of the end surfaces of the first to the third waveguides is located and exposed on a side surface of the hole.

9. (Original) The optical performance monitoring module as claimed in claim 8, wherein the hole has a shape of triangular column.